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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/728,446

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Scott A. Burton

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EXAMINER

GHALI, ISIS A D

ART UNIT

PAPER NUMBER

1611

NOTIFICATION DATE

DELIVERY MODE

03/10/2010

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No. 10/728,446	Applicant(s) BURTON ET AL.	
	Examiner Isis A. Ghali	Art Unit 1611	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 October 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4,6-35,37-39 and 45-50 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4,6-35,37-39 and 45-50 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>10/23/2009</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

The finality of the office action mailed 08/18/2009 is withdrawn.

The receipt is acknowledged of applicants' IDS filed 10/23/2009.

Claims 1-4, 6-35, 37-39 and 45-50 are pending and included in the prosecution.

Double Patenting

1. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

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2. Claims 1-4, 6-35, 37-39 and 45-50 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-51 of copending Application No. 10/917,002, and over claims 21-30 of copending Application No. 10/917,102. Although the conflicting claims are not identical, they are not patentably distinct from each other because the subject matter claimed in the instant application is fully disclosed in the referenced copending applications and would be covered by any patent granted on the copending applications since the referenced copending applications and the instant application are claiming common subject matter as follows: method of coating silver compound on a substrate comprising combining silver-containing compound with ammonium-containing compound in a solution, coating the solution on a substrate and drying the substrate. The present claims anticipate the claims of the copending applications.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 25 and 26 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claims 25 and 26 recites the limitation "the article

impregnated with" in second line of each claim. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1-4, 9-14, 25, 45, 46, 48-50 are rejected under 35 U.S.C. 102(b) as being anticipated by Davis et al. (US 2,813,059, currently listed on PTO 892).

Current claim 1 is directed to a method of coating silver compounds on a substrate, the method comprising:

providing a sparingly soluble silver-containing compound selected from the group consisting of silver carbonate, silver oxide, silver stearate, silver phosphate, silver thiocyanate, and combinations thereof,

providing an ammonium-containing compound,

combining the sparingly soluble silver-containing compound with the ammonium-containing compound to form an aqueous solution prior to coating on a substrate,

subsequently, coating the solution formed by combining the silver-containing compound and the ammonium-containing compound on a substrate,

and drying the solution to form a coated substrate that is stable against darkening when exposed to at least one of visible light, ultraviolet light, electron beam, and gamma ray sterilization;

wherein the dried coating comprises the sparingly soluble silver-containing compounds deposited from the coating solution and further wherein the dried coating is essentially free of silver metal.

Claim 48 further recite the expression "the method consisting essentially of", and claim 50 recites the expression "the method consisting of". Claim 49 further recite that the "coating step is carried out with single coating solution".

Davis disclosed unexpectedly that substantially water-insoluble silver compounds can be precipitated on the surface of fibrous article wherein the deposited silver compound shows no tendency for discoloration after long exposure to direct sunlight and shows highly germicidal effect (col.2, lines 56-69; col.9, lines 56-64). Davis disclosed process for coating the surface of an article comprising the steps of wetting the surface of the article by spraying to its surface, i.e. coating, an aqueous solution comprising sparingly soluble silver compound and ammonia to form complex cations with all the silver in the solution, removing any undesired excess of the composition, drying the wetted article to deposit the desired silver compound in a condition wherein it is light stable (col.3, lines 7-25, 46-48; col.5, lines 7-15; col.7, lines 24-36; claim 1). The solution is applied to the article by spraying, dipping or padding (col.3, lines 7-10). Sparingly soluble silver compounds include silver phosphate, silver thiocyanate, and silver carbonate (col.3, lines 60-65). The ammonia is used so that the pH of the solution

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is 9.0 in order to provide clear solution without the treated article becoming colored upon exposure to light (col.5, line 73-col.6, line 7). The reference teaches removing ammonia and any other ingredients, which reads on claims 10 and 11 (col.7, lines 29-36). The reference did not disclose heating of the solution during preparation or during coating, therefore it is implied that these steps are performed under ambient temperature, i.e. less than 40 °C. The article is cellulosic fabric or paper, i.e. film (col.6, lines 68-70). The reference discloses that the treated product has the sparingly soluble silver compound being the sole remaining material on the surface of the article, therefore has no tendency to become discolored (col.9, lines 56-63; col.10, lines 10-16). The coating composition may comprise bleaching agent that is oxidizing agent (col.8, lines 50-60; col.9, lines 46-51). The disclosure of the reference meets the expressions “consisting essentially of” and “consisting of” as recited by claims 48 and 50 respectively.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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9. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

10. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

11. Claims 6, 27-30, 33-35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Davis et al. in view of Murtfeldt (US 4,592,920).

The teachings of Davis are previously discussed in this office action under anticipatory rejection.

Although Davis teaches sparingly soluble silver compounds, however, the reference does not explicitly teach silver oxide as instantly claimed by claims 1 and 27.

Murtfeldt teaches coating of medical devices with composition containing antimicrobial metal that is biocompatible with body including silver oxide (abstract; col.2, lines 1-3; col.3, lines 22-25, 32-33).

Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention to coat a medical article using an aqueous solution comprising sparingly water soluble silver salt, ammonium compound and oxidizing agent as taught by Davis, and replace the silver salt with silver oxide taught by Murtfeldt. One would have been motivated to do so because Murtfeldt teaches that silver oxide is biocompatible with body. One would reasonably expect coating a medical article with an aqueous solution comprising silver oxide, ammonium compound and oxidizing agent wherein the coating is safe and biocompatible with the body.

12. Claims 7, 8, and 37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Davis in view of WO 02/43743 ('743).

The teachings of Davis are previously discussed in this office action under anticipatory rejection.

Although Davis teaches ammonium compounds to form the coating solution, however, the reference does not explicitly teach the ammonium carbonate as instantly claimed by claims 7 and 8.

Although Davis teaches the antibacterial effect of the article coated with solution comprising sparingly soluble silver compound and ammonium compounds, however,

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does not explicitly teach the use of the article as wound dressing as instantly claimed by claim 37.

WO '743 teaches photostabilization of silver compounds (abstract). Materials that facilitate photostabilization of silver compounds include ammonium carbonate and peroxides. Stabilized silvers is useful as wound dressing (page 3, lines 24-30; page 4, lines 1-15; page 5, lines 3, 10-15; page 7, lines 1- 4, claim 9).

Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention to coat a medical article using an aqueous solution comprising sparingly water soluble silver salt and ammonium compound as taught by Davis, and replace the ammonium compound with ammonium carbonate and use the composition for coating wound dressing as taught by WO '743. One would have been motivated to do so because WO '743 teaches that ammonium carbonate facilitates photostabilization of silver and stabilized silvers is useful as wound dressing. One would reasonably expect coating a wound dressing using an aqueous solution comprising sparingly water soluble silver salt and ammonium carbonate wherein the coating is photostable.

13. Claims 15-24, 26, 31, 32, 38, 39, and 47 are rejected under 35 U.S.C. 103(a) as being unpatentable over Davis in view of Murtfeldt and further in view of WO '743.

The teachings of the references are previously discussed in this office action.

Davis combined with Murtfeldt teach medical article coated with an aqueous solution comprising silver oxide and ammonium compound.

The references do not explicitly teach the ammonium compounds including ammonium carbonate as instantly claimed by claims 15-24, 26, 31 32, and 47.

Although Davis teaches the antibacterial effect of the article coated with solution comprising sparingly soluble silver compound and ammonium compounds, however, does not explicitly teach the use of the article as wound dressing as instantly claimed by claim 38, 39.

Ammonium chloride and wound dressings are taught by WO '743.

Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention to coat a medical article using an aqueous solution comprising sparingly water soluble silver oxide and ammonium compound as taught by Davis combined with Murtfeldt, and replace the ammonium compound with ammonium carbonate and use the coating for wound dressing as taught by WO '743. One would have been motivated to do so because WO '743 teaches that ammonium carbonate facilitates photostabilization of silver and stabilized silvers is useful as wound dressing. One would reasonably expect coating a wound dressing using an aqueous solution comprising sparingly water soluble silver oxide and ammonium carbonate wherein the coating is photostable.

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Isis A. Ghali whose telephone number is (571) 272-0595. The examiner can normally be reached on Monday-Thursday, 6:30 AM to 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sharmila Landau can be reached on (571) 272-0614. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Isis A Ghali/
Primary Examiner, Art Unit 1611

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